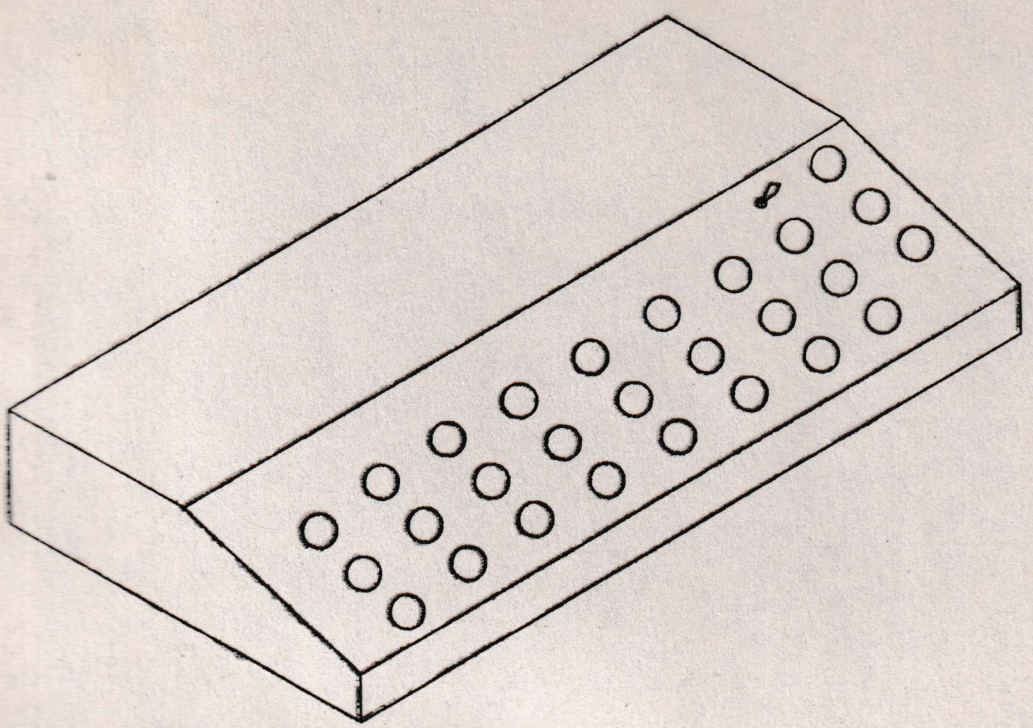
Designlab

CL-2

Quantizing Colorizer



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Arthur,

The colorizer looks sharper than I had expected. There is a problem though. The change in the circuit that got rid of the black edges caused a slight misalignment of the knobs. If you set all the knobs to get an even grey over all the colors, then look at the knobs, you will see that they range from 4 to 6. They should all be at 5. This is not a problem when you just want to get all the knobs back to where they were. It is a problem if you get a color on one set of knobs and want to set other knobs to the same color. I can get rid of this, at least I think so, by hand tuning each of the 24 amps that I added. One of the reasons that this colorizer is cheaper than the other one is that there is no hand tuning needed. I will tune the channels for $100.

Good luck,

Dave

Enclosed are a couple of terminators. These don't normally come with the machines. You need one for the video input and one for the sub-carrier input.

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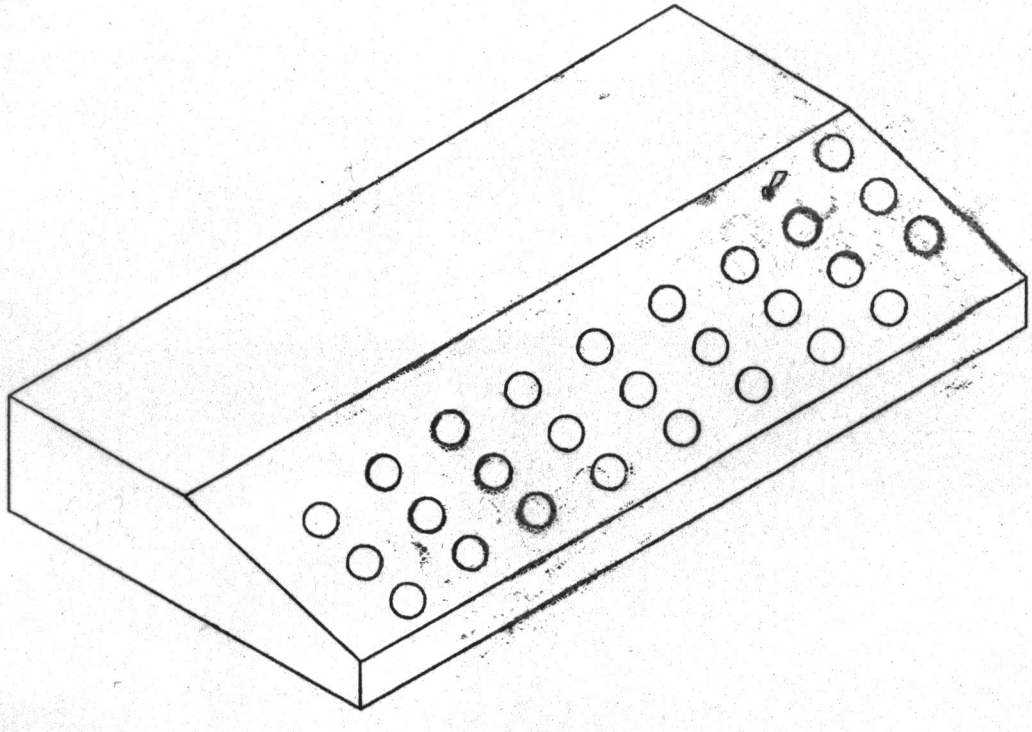

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INTRO:

The CL-2 is a single input quantizing colorizer. It divides the video input into eight shades of grey and changes each shade of grey into a color (or another shade of grey). There is a red, green, and blue knob for each shade of grey. There are master contrast and brightness controls. A filter switch lets you remove color or noise from the video input before quantizing. There is also a detail knob to enhance the image.

INPUTS and OUTPUTS:

The CL-2 has one video input and one video output. It also has four sync inputs and a power input.

Plug the power cord into the power connector on the back of the CL-2.

The video input is a "loop-thru" input. This means that you can feed a video signal (like a camera) into the colorizer and loop it over to a monitor or another video processor. The loop-thru input does not have a built in terminator, so if you don't want to loop to another machine you must place a 75 ohm terminator on the unused BNC connector.

The video output is a standard NTSC video signal. You should connect this to a monitor or VCR.

There are four sync signals needed by the CL-2. These signals are Composite Sync (SYNC), Blanking (BL), Burst Flag (BF), and Sub-Carrier (SC). Each of these are standard EIA sync signals that are available from most color sync generators. These inputs are loop-thru inputs. You can loop the sync signals into the colorizer and out to other machines. If you don't want to loop the sync to another machine, you should put a 75 ohm terminator on the unused BNC connectors.

QUANTIZING:

Quantizing is a process that divides the video input into several "slices" or shades of grey. For example, all shades of grey from black to 25% white might be seen as one shade of grey. Shades from 25% white to 50% white might be seen as another shade. At this rate the image would be divided into four shades. The CL-2 would then let you colorize each of these shades with seperate colors.

The CL-2 can divide the video into as many as eight shades and as few as two or three. The contrast control determines how many shades the video is divided into. You could use the brightness control to set the darkest shade and the contrast control to set the lightest shade.

The detail knob is fr enhancing the image. It mixes a special signal into the output. This signal divides each of the shades of the quantizer into a dark half and a light half. If one of the shades is colorized red, the detail knob will split it into dark red and light red. Be careful with this knob becuase it can brighten the video signal so much that it can get bigger than NTSC allows. This can only happen if the colorizer is set for white or very bright colors, and the detail knob is turned up more than half way.

FILTER:

There is a filter switch that has three positions. If the switch is in the middle position, there is no filtering of the video input. When the switch is thrown to the left, most of the color is removed from the video input. This does not change the color out of the colorizer. With the switch thrown to the right, the color and most grain type noise will be filtered off.

COLOR CONTROLS:

Most of the controls on the CL-2 are for choosing colors. There are twenty four color controls. There are eight sets of red, green and blue controls. For each of the eight shades of the quantizer there are corresponding red, green and blue controls. The knobs are in a three by eight grid. The top row of eight knobs are for red, the middle row is for green, and the bottom row is for blue. The left three knobs are for the first or darkest shade from the quantizer. The next three knobs to the right are for the next shade, and so on.

TIPS:

Some colors only look good when next to other colors. For example, red looks different when next to blue versus next to black.

Strong differences between colors next to each other will make the edges stand out more and will make them look noisier.

You get a much sharper image if you avoid the noise filter. The color filter will remove small amounts of noise, but the noise filter may smear the image a little.

Very rich colors may look noisier than weak colors when playing back a tape, this is because most VCR's are not tuned to handle the full range of color that NTSC allows. Most VCR's are set up for a color camera, but color cameras don't put out colors as strong as a colorizer or character generator.

Limited Warranty:
(90 days for Labor, 1 year for Parts)

Designlab warrants this video product for a period of 90 days, to be free from defective workmanship and materials, and agrees that it will, at its option, either repair or replace the defective product or part thereof at no charge to the purchaser for parts or labor. This warranty continues for an additional nine months, for a total of one year, for parts. Labor is not provided free of charge for this additional period.

This warranty does not apply to any appearance items of the Product, nor to any Product that has been subjected to misuse, abnormal service or handling, or which has been altered or modified in design or construction.

Please do not ship this product back for service without contacting the Designlab service department first.

Service Information:

For more information or for service, contact:

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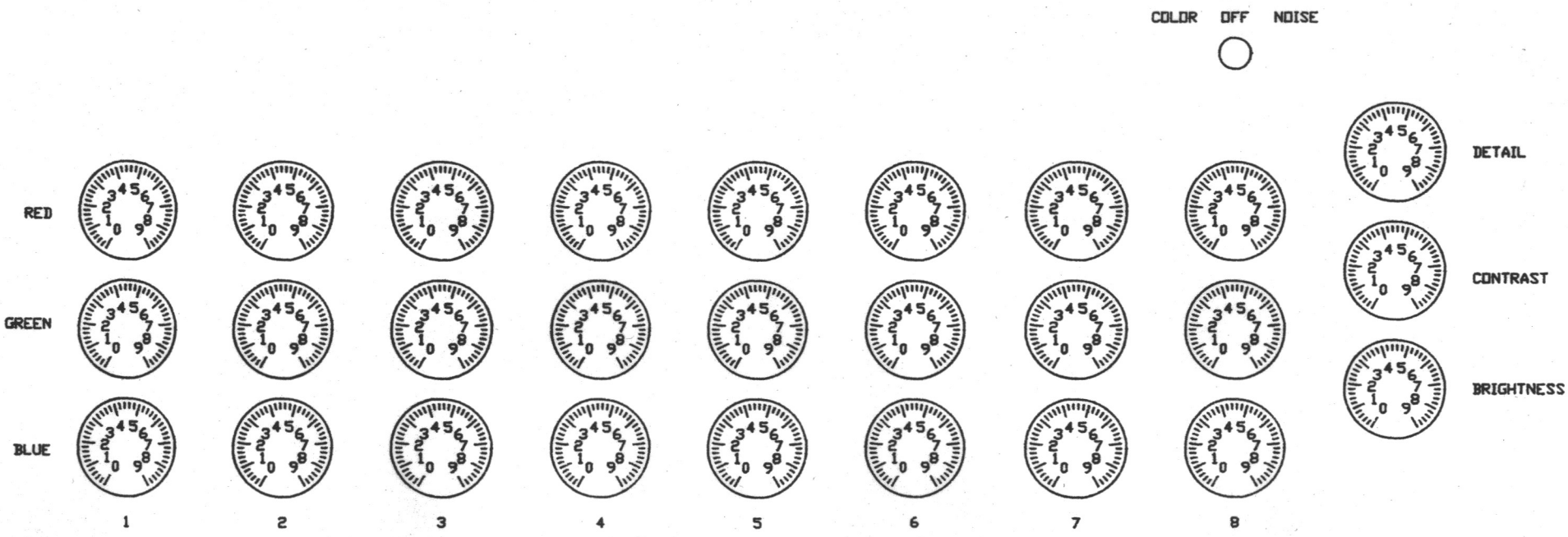
COLOR
OFF
NOISE
RED
GREEN
BLUE
1
2
3
4
5
6
7
8
DETAIL
CONTRAST
BRIGHTNESS

SC
RF
BL
STAC
OUT
IN